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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,607	08/05/2003	Tomoki Nobuta	NECW 20.531	6611

26304 7590 01/26/2006

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EXAMINER
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WEINER, LAURA S

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/634,607	NOBUTA ET AL.	
	Examiner	Art Unit	
	Laura S. Weiner	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 6,7,9 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,8,10-13 and 15-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10-05</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Priority***

2. Receipt is acknowledged of the translation of priority document JP 2002-227160 filed 8-5-02.

### ***Election/Restrictions***

3. Claims 6-7, 9, 14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1-6-05.

### ***Claim Rejections - 35 USC § 112***

4. Claims 1-5, 8, 10-13, 15-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rejected because the claim as written is unclear if the electrode comprises a proton-conducting compound which comprises a nitrogen-containing heterocyclic compound or the electrode comprises a proton-conducting compound and

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a nitrogen-containing heterocyclic compound.

Claim 15 is rejected because an electrode is being claimed and an electrode cannot comprise a positive current collector which is separated from a negative electrode by a separator. A battery comprises a positive electrode, a negative electrode and a separator.

Claim 16 is rejected because an electrode is being claimed and an electrode cannot comprise an electrolyte containing a proton source. A battery comprises a positive electrode, a negative electrode, an electrolyte and a separator.

Claim 19 is rejected because a battery is an electrochemical cell. The claim should depend from an electrode, therefore stating a secondary battery comprising the electrode of... or the claim could cite that the electrochemical cell of claim 17 is a secondary battery.

Claim 22 is rejected because a battery is an electrochemical cell. The claim should depend from an electrode, therefore stating a secondary battery comprising the electrode of... or the claim could cite that the electrochemical cell of claim 20 is a secondary battery.

### ***Claim Rejections - 35 USC § 102***

5. Claims 1-5, 8, 10-13, 15-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinozaki et al. (JP 3-182051, abstract).

Shinozaki et al. teaches a battery comprising two electrodes of which at least one comprises polyaniline as the principal electrode active substance. Shinozaki et al.

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teaches that 2 g polyaniline [*95 parts proton-conducting compound*] and 0.1 g 2-mercaptobenzimidazole [*5 parts nitrogen-containing heterocyclic compound*] was mixed for the active substance. The active substance was formed on a stainless steel expanded metal to prepare the electrode.

6. Claims 1-3, 8, 10-13, 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Kurosaki et al. (US 2002/0073534) or Harada et al. (6,641,759).

Kuroskaki et al. teaches on page 6, that the cathode comprises poly-5-cyanoindole active material (formula 3) and teaches the anode comprises polyphenylquinoxaline active material(formula 4).

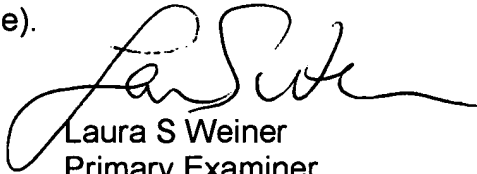
Harada et al. teaches in example 1, columns 3-4, that the cathode active material is polyindole (formula 1) and anode active material is polyphenylquinoxaline (formula 2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura S Weiner  
Primary Examiner  
Art Unit 1745

January 19, 2006